DOCUMENT RESUME

ED 200 606 TM 810 013

TITLE Basic Skills Assessment Program. Parent Pamphlet, Teacher Pamphlet, and Administrator Pamphlet.
INSTITUTION Dependents Schools (DOD), Washington, D.C.
PUB DATE [80]
NOTE 39p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Basic Skills; *Behavioral Objectives; *Educational Assessment; Elementary Secondary Education; Language Skills; Mathematics; *Program Descriptions; Reading Skills; Testing Programs; *Test Interpretation
IDENTIFIERS *Basic Skills Assessment Program; *Dependents Schools

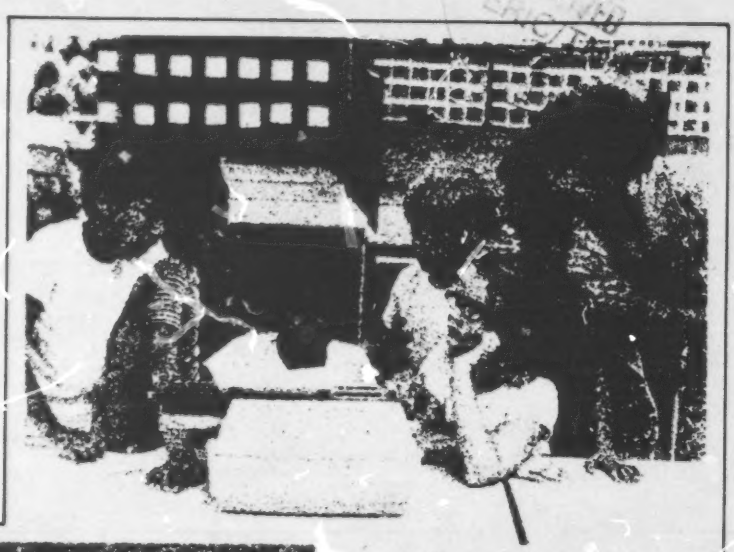
ABSTRACT

In the spring of 1980, the Department of Defense Dependents Schools (DODDS) completed its second year of basic skills testing. During the first year, the Basic Skills Assessment Program tested students' math skills in grades 7 and 11, and reading and language skills in grades 9 and 11. During the second year, the testing program was expanded to include the elementary grades. Basic skills performance in reading, math, and language was assessed in grades 3 and 11, math skills in grades 5 and 7, and reading and language skills in grades 4, 6, and 9. One of the major goals of the Basic Skills Assessment Program is to provide useful test data for program evaluation as well as individual diagnosis. These pamphlets are designed to inform parents, teachers, and administrators about the DODDS Basic Skills Assessment Program. Instructional goals for reading development, language arts, and mathematics are included at the various grade levels and measurement terms are defined. The administrator's pamphlet is designed to help him or her integrate results of the assessment with other input on student performance and program effectiveness, and to use these results to make instructional and curricular decisions. (Author/RL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED200606

BASIC SKILLS ASSESSMENT PROGRAM



U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

H. Howe, D.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PARENT PAMPHLET

Why Measure Learning?

We measure learning to gather information on a child's progress within an instructional program. Tests designed to determine learning strengths and weaknesses give teachers useful information for planning appropriate learning experiences.

Building the Basic Skills Tests

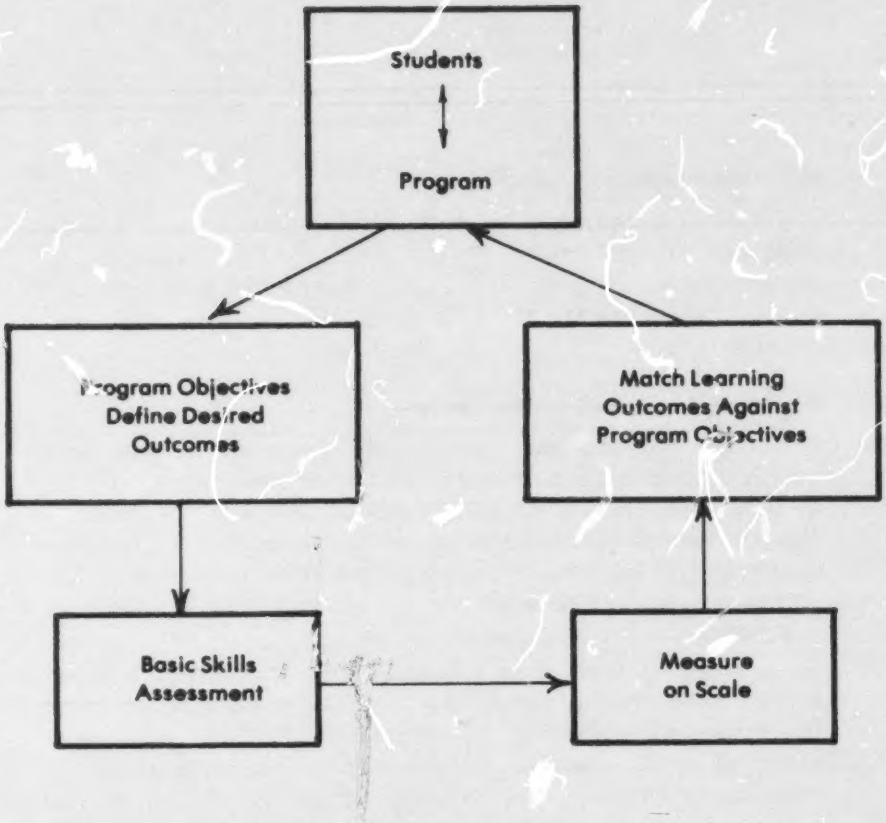
In order to provide useful information on a child's educational progress, a test must match classroom learning experiences. The DoDDS scope and sequence guides provide the framework for those experiences by identifying specific goals and objectives for each grade level. The objectives represent basic skills essential to successful performance in mathematics, reading, and language.

In developing tests, items designed to measure the basic skills were drawn from the Los Angeles County Test Development Center's item banks. DoDDS personnel selected and reviewed all items for appropriateness to measuring progress in existing programs. Each test is designed to measure your child's basic skill development.

The Basic Skills Assessment Program

The basic skills testing program uses a new and improved approach to testing. Use of this approach to basic skills testing allows optimal use of test results for planning daily lessons as well as in overall program development. The diagram on the next page represents an evaluation design for measuring learning.

EDUCATIONAL EVALUATION GUIDE



Students interact daily with an instructional program which has been defined by specific goals and objectives for attaining the basic skills. By matching how well a child measures up to the program objectives, learning outcomes can be determined. The test results can also be used to make decisions regarding overall program effectiveness.

Interpreting Your Child's Test Results

The results of your child's performance on the Basic Skills Test will be presented on the Student Report. There will be one Report for each of the three content areas of Mathematics, Reading and Language.

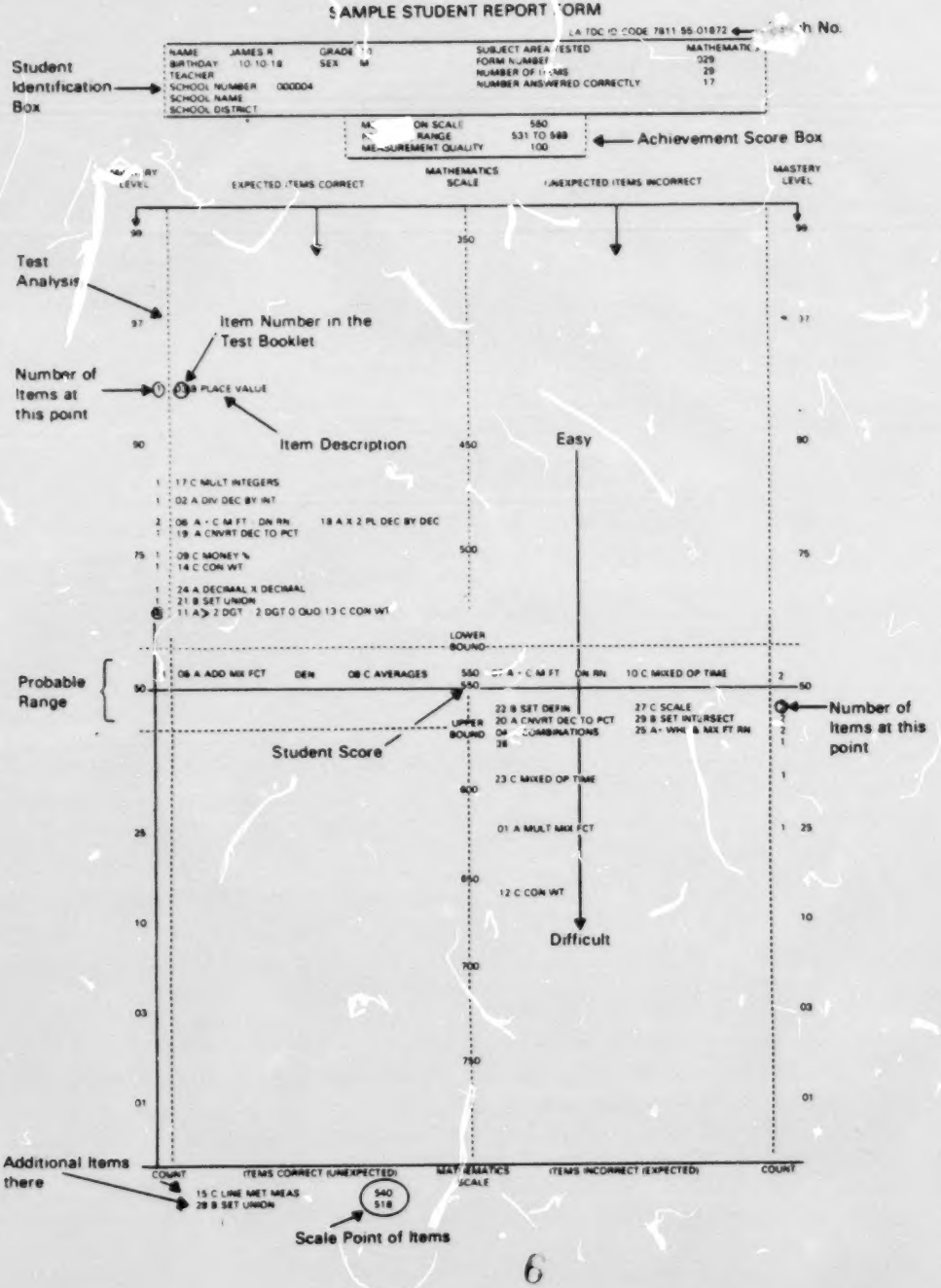
A sample Student Report for Mathematics is shown on the next page.

The Student Identification Box at the top of each Report gives descriptive information such as student name, grade, birthdate, sex, etc. The smaller box, the Achievement Score Box, contains the student's Measure on Scale (score) on a range from 50 to 800, the Probable Range in which the student's score would be likely to fall if the test were given again, and the Measurement Quality Index.

The rest of the Student Report, the Test Analysis, lists each item and matches it to two scales. The Mastery Level Scale (first and last columns) ranges from 99 at the Report's top to 01 at the bottom. This scale shows the chances out of 100 that a pupil would answer an item correctly, or would do so for a similar item even if he or she missed the one in question. If an item is listed at 50 on the Mastery Level Scale, the probability is 90 out of 100 the pupil could answer that item correctly. The student's score (Measure on Scale) will always equal 50 on the Mastery Level Scale, because that is the level at which the student would have an even chance of answering an item correctly.

The Achievement Scale runs down the center of the Report. The student's placement (Measure on Scale) on this scale is shown by the solid line across the Report. Dotted lines paralleling the solid line indicate the Probable Range. Since scores differ from student to student, that part of the Achievement Scale shown will vary from one Report to another. If a student received a score of 450 instead of the 550 shown on the sample, then 450 would appear on the solid line and the scale portion shown would run from 250 to 650.

SAMPLE STUDENT REPORT FORM



items are listed in order of their placement on the Achievement Scale, from the easiest to most difficult. Easy items are at the top of the Report, hard items at the bottom. Since more than one item can be at any point on the Achievement Scale, the number of test items at each point is shown next to the Mastery Level column. When more than two items have the same scale value, two are listed together. The rest appear at the bottom of the Report along with their difficulty level.

Items the student answered correctly are listed in the left-hand column. Those missed appear in the right-hand column.

The upper left-hand box contains expected correct answers, the lower left unexpected correct answers, the upper right unexpected errors, and the lower right expected errors. The student's ability level is the sole determining factor of what is expected and what is not.

In effect, the Student Report is a blueprint of your child's performance in relation to the difficulty of each test item.

What does Measure on Scale mean?

A student's Measure on Scale is derived from the number of items right and shows where he or she stands, relative to a larger set of objectives. It represents the student's performance or score in a skill area.

What is meant by Probable Range?

Due to the imperfect nature of all types of measurement, no score is absolute. The probable range shows where we would expect a student's score to fall if a similar test were to be given again.

How do we know if the measurement is valid?

The Measurement Quality shows how well the student responds in the expected pattern of getting easy items correct and more difficult items wrong. A low measurement quality may mean the measure of performance is not accurate. The closer the measurement quality index is to 100, the more valid the measure of performance.

WHAT WILL THE BASIC SKILLS ASSESSMENT PROGRAM DO FOR MY CHILD?

The Basic Skills Assessment Program provides the following benefits:

1. a way to assess performance on a set of skills, rather than comparing it to the performances of other children of similar age.

2. a more complete profile of overall student performance by providing a Student Report that displays a pupil's performance on each item.

3. identifying specific strengths and weakness to guide teachers in providing learning experiences.

4. the score or Measure on Scale reflects your child's progress in relation to the instructional program.

5. the measurement quality index shows how much confidence one can place in the score.

6. defines individual performance in terms of degree of mastery for each basic skill.

7. test results can measure growth during one year or over several years' time.

8. gives feedback on how effective programs are.

The goals for each grade level have been listed on the following pages. A listing of the skills tested is also included. Locate your child's grade level within each of the basic skills content areas for a complete listing of grade level basic skills objectives. These objectives represent the content of the Basic Skills Assessment Program.

INSTRUCTIONAL GOALS FOR READING DEVELOPMENT

The Student Demonstrates:

- use of sight vocabulary
- use of structural analysis for word recognition
- comprehension of factual information
- comprehension of critical information
- comprehension of critically read material
- use of visual reference materials
- organization of reading material for study
- appreciation of literature in many genres

Specific reading objectives to be measured

DoDDs Reading Objectives: Third Grade

The student should be able to:

recognize variant consonant sounds.
recognize initial consonant sounds.
recognize consonant blends.
identify sound/symbol relationship.
recognize long vowels.
recognize short vowels.
recognize words from the Dolch list.
use plural forms.
use inflected endings.
identify compound words.
identify root words.
sequence events (pictures and words).
use contextual clues for meanings (sentence and paragraph).
find the main idea (literal and interpretive).
pick out details.
predict outcomes of orally read story.
recognize fact and fantasy.
identify cause and effect.
follow 1-step written directions (2 levels of difficulty).
use a table of contents.
alphabetize by first letter.

DoDDS Reading Objectives: Fourth Grade

The student should be able to:

- recognize consonant blends.
- recognize diphthongs.
- recognize vowel digraphs.
- recognize consonant digraphs.
- identify compound words.
- identify root words.
- identify contractions.
- use prefixes correctly.
- use contextual clues for meaning.
- recall factual information.
- recognize main ideas (literal and interpretive).
- sequence events.
- pick out supporting details.
- draw conclusions (inferences).
- recognize fact and opinion.
- recognize cause and effect.
- predict outcomes.
- arrange facts in order of importance.
- alphabetize (first letter and guide words to second letter).
- use dictionary skills (word definitions, guide words).
- use a glossary or table of contents.
- follow directions.

DoDDS Reading Objectives: Ninth Grade

The student should be able to:

- use suffixes correctly.
- use plurals correctly.
- use possessives correctly.
- identify etymologies of English words.
- identify word origins.
- identify main ideas (literal and evaluative).
- identify cause and effect.
- recognize bias.
- recognize author point of view.
- compare and contrast.
- use analogies.
- identify similies and metaphors.
- interpret mood and tone.
- identify plot components.
- analyze character.
- interpret figurative language.
- interpret imagery.
- recognize key words.
- follow directions.
- interpret information (graphs and charts).
- use synonyms.
- use antonyms.
- use a library card catalogue.
- use dictionary definitions.
- use a dictionary pronunciation key.
- use an index.

DoDDS Reading Objectives: Sixth Grade

The student should be able to:

- recognize plurals.
- recognize possessives.
- recognize contractions.
- recognize irregular verb forms.
- syllabify (dictionary pronunciation).
- use prefixes correctly.
- use suffixes correctly.
- use contextual clues (word recognition).
- identify author purpose.
- identify important facts.
- sequence (relationship of events).
- identify main ideas (literal and interpretive).
- identify subordinate details.
- identify outcomes.
- identify fact and opinion.
- identify cause and effect.
- compare and contrast.
- infer facts.
- recognize key words or ideas.
- use analogies (mood/tone).
- recognize false generalizations.
- predict outcomes.
- follow directions.
- use dictionary guide words.

DoDDS Reading Objectives: Eleventh Grade

The student should be able to:

- analyze character.
- understand literal meaning.
- understand symbolic meaning.
- identify setting and theme.
- identify cause and effect.
- identify subordinate detail.
- identify motives.
- identify point of view.
- compare and contrast.
- pick out universal themes.
- interpret figurative language and imagery.
- predict outcomes.
- recognize propaganda.
- use analogies.
- identify main ideas (literal, interpretive, evaluative).
- identify solutions.
- recognize author bias.
- recognize conclusions and generalizations.
- locate information.
- recognize synonyms.
- recognize weighted words.
- interpret information.
- follow instructions.

INSTRUCTIONAL GOALS FOR LANGUAGE ARTS

The Student Demonstrates:

- use of appropriate punctuation
- use of appropriate capitalization, proper grammar usage
- use of proper sentence structure
- building and changing sentences
- appropriate paragraph development
- spelling competence

Specific language arts objectives to be measured

DoDDS Language Arts Objectives: Third Grade

The student should be able to:

capitalize the first word of a sentence.
capitalize "I."
capitalize proper nouns.
capitalize initials.
capitalize months.
capitalize days of the week.
use correct end punctuation.
use the period correctly.
use quotation marks.
use the exclamation mark.
use commas in dates.
use comma between city and state.
use correct verb tenses.
have subject and verb agree.
use negatives.
use conjuctions correctly.
use pronouns correctly.
recognize subject and predicate.
recognize run-on and incomplete sentences.
expand simple sentences by modification.
spell the schwa sound.
spell with short medial vowels.
spell consonant sounds.
spell vowel digraphs.
spell suffixes that form agentive nouns.

DoDDS Language Arts Objectives: Fourth Grade

The student should be able to:

- capitalize names of cities.
- capitalize names of states.
- capitalize names of special places.
- capitalize the beginnings of lines of poems.
- use abbreviations.
- use commas between city and state.
- use commas to set off direct address.
- use the apostrophe in singular possessives.
- use the apostrophe in contractions.
- use correct verb tenses.
- have subject and verb agree.
- use negatives.
- use pronouns correctly.
- use adjectives and adverbs correctly.
- recognize subject and predicate.
- recognize run-on and incomplete sentences.
- combine simple sentences.
- spell vowel digraphs.
- spell with short vowels.

DoDDS Language Arts Objectives: Ninth Grade

The student should be able to:

- use the comma for clarity.
- use the apostrophe.
- form plural possessives.
- use the colon to precede formal lists or series.
- use the hyphen for correct word division.
- use verb tenses correctly.
- have subject and verb agree.
- use negatives correctly.
- use pronouns correctly.
- use adjectives and adverbs correctly.
- use the positive, comparative, and superlative.
- recognize subject and predicate.
- recognize run-on and incomplete sentences.
- recognize the parts of a business letter.
- use appositives.
- combine sentences to form a complex sentence.
- coordinate and subordinate ideas in a sentence.
- identify the topic sentence of a paragraph.
- identify subordinate detail in a paragraph.
- identify the main idea of a paragraph.
- spell long final vowel sounds.
- spell consonant units.
- spell short vowel digraphs.
- spell with vowel-consonant marker e pattern.
- spell words frequently misspelled due to mispronunciation.

DoDDS Language Arts Objectives: Sixth Grade

The student should be able to:

- punctuate quotations correctly.
- use the comma to set off direct address.
- use the comma in the greeting and close of a letter.
- use the apostrophe in singular possessives.
- use the apostrophe in plural possessives.
- use the hyphen for word division.
- use verb tenses correctly.
- have subject and verb agree.
- use negatives correctly.
- use pronouns correctly.
- use adjectives and adverbs correctly.
- recognize subject and predicate.
- recognize run-on and incomplete sentences.
- use appositives.
- compound and coordinate sentences.
- spell long final vowel sounds.
- spell short vowel digraphs.
- spell words frequently misspelled due to mispronunciation.

DoDDS Language Arts Objectives: Eleventh Grade

The student should be able to:

- use the comma for clarity.
- use the apostrophe.
- form the plural possessive.
- use the colon to precede formal lists or series.
- use the semicolon to separate clauses of a compound sentence.
- use verb tenses correctly.
- refer pronouns to their antecedents.
- recognize subject and predicate.
- recognize run-on and incomplete sentences.
- recognize parts of a business letter.
- use appositives.
- coordinate and subordinate ideas in a sentence.
- identify the inferred main idea of a paragraph.
- identify the topic sentence of a paragraph.
- use paragraph transitions.
- identify subordinate detail in a paragraph.
- identify the pattern of paragraph development.
- identify the main idea of a paragraph.
- spell prefixes.
- spell consonant units.
- spell less common vowel units.

INSTRUCTIONAL GOALS FOR MATHEMATICS

The Student Demonstrates:

- number awareness
- computation skills
- problem solving ability
- data collection skills
- use of measurement
- prediction skills
- geometry skills
- use of sets

Specific mathematics objectives to be measured

DoDDS Mathematics Objectives: Third Grade

The student should be able to:

identify the face value of digits.
read and write number words through ten thousand.
recognize regions 2/2, 2/4, 3/4, 4/4.
compare numbers through 10,000 for equality or inequality.
round whole numbers through 10,000 to nearest 10 or 100.
add 3-digit numbers with regrouping.
subtract 3-digit numbers with regrouping.
add columns of numbers through 3 digits.
make change from $1.00.
demonstrate that multiplication is repeated addition.
do 2-digit addition with regrouping.
do 3-digit addition with regrouping.
do 2-digit subtraction with regrouping.
do 3-digit subtraction without regrouping.
do a word problem requiring appropriate skill application.
read and obtain data from bar and/or line graphs.
tell time.
measure area in square units.
complete a number sentence.
identify a parallelogram.
handle basic division facts to 6.
handle basic multiplication facts to 6.

DoDDS Mathematics Objectives: Fifth Grade

The student should be able to:

identify factors of numbers.
find the GFC.
compare fractions >, <, =.
compare decimals >, <, =.
do 3-digit multiplication with regrouping.
do 2-digit multiplication with regrouping (several times).
compute averages.
multiply decimals.
divide decimal by a whole number.
change from mixed number to improper fraction.
change improper fraction to mixed number.
add and subtract common fractions with like denominators.
add and subtract mixed numbers with like denominators.
solve word problems involving whole numbers.
solve word problems involving money.
interpret graphs.
add, subtract, multiply decimals to ten-thousandths.
divide whole numbers.
multiply whole numbers.
name a polygon with more than four sides.
do area and perimeter problems.
identify radius of a circle.
do simple probability identification.

DoDDS Mathematics Objectives: Seventh Grade

The student should be able to:

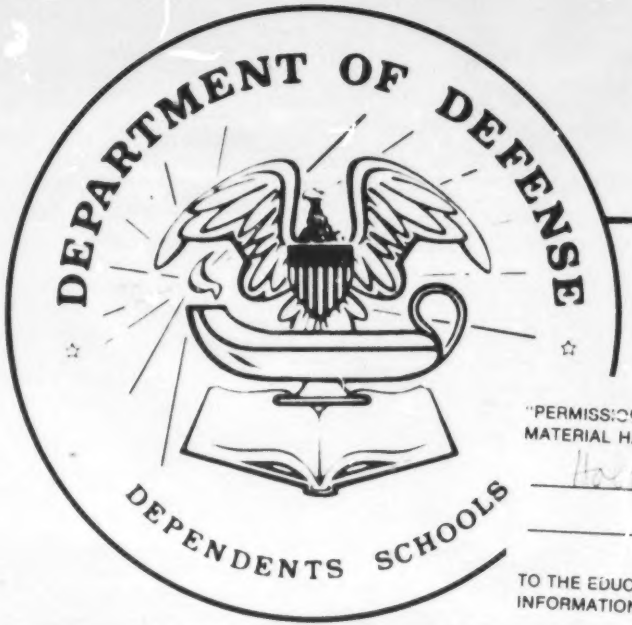
add multi-digit numbers.
add fractions common/unlike denominators.
add fractions mixed/unlike denominators.
add decimals.
subtract multi-digit numbers without regrouping.
subtract, regrouping across zeroes.
subtract decimals.
multiply 4-digit by 3-digit with regrouping.
multiply fractions: whole by mixed.
multiply decimal by decimal.
divide multi-digit by 2-digit.
divide decimal by decimal.
convert percent to decimal.
solve ratio problems.
change a decimal to a fraction.
change percent to fraction.
change fraction to percent.
find the area of a solid.
complete an equation.
solve consumer, career word problems.
solve probability problems.
solve simple algebraic combined operations problems.
solve problems involving metric weight.
solve problems involving square metric measure.
solve problems involving cubic metric measure.
apply subtraction of decimals (money).
do mixed operations: time-averages.
apply (using money) multiplication by 2-digit.
apply division of decimals.
apply multiplication of weight with renaming.
apply conversion percent to decimal.
apply knowledge of subtraction of fractions.
apply knowledge of addition: temperature (centigrade).
apply simple algebraic expressions (several times).
interpret charts and graphs (several times).

DoDDS Mathematics Objectives: Eleventh Grade

The student should be able to:

add multi-digit numbers with regrouping
add common fractions/unlike denominators.
add mixed fractions/unlike denominators.
add decimals unaligned and unequaled.
subtract multi-digit numbers with regrouping.
subtract across zeroes.
subtract decimals unaligned and unequal.
multiply by a 4-digit number with regrouping.
multply fractions by a whole or mixed number.
multiply decimal by decimal.
divide a multi-digit by a 2-digit (zero in quotient).
divide decimal by decimal.
convert percent to decimal.
solve ratio problems.
change a decimal to a fraction.
change a fraction to a percent.
find area of solid.
complete an equation.
solve consumer, career word problems.
solve probability problems.
solve algebraic combined operations problems.
solve problems involving weight (English).
solve problems of cubic measure (English).
solve problems of square measure (English).
apply subtraction of decimals (money).
do mixed operations: time-averages.
apply using money — multiplication by 2-digit.
apply using division of decimals.
apply multiplication of units of weight.
apply conversion percent to decimal.
apply knowledge of subtraction of fractions.
add simple algebraic expressions (several times).
interpret charts and graphs (several times).

TM 8100 13 (2 of 2)



DEC 1980
Received
ERIC/TM

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

TELLING PARENTS ABOUT THE BASIC SKILLS ASSESSMENT PROGRAM

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Hoover, D.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TEACHER PAMPHLET

The Basic Skills Assessment Program

DoDDS Basic Skills Assessment Program utilizes a mathematical model that combines the qualities of objectivity and orderliness to provide a new and improved approach to testing. This approach is about measuring persons, not sampling populations, and in effect describes what happens when a student takes a test item. The methodology of this unique approach to Basic Skills Assessment allows optimal use of test results for evaluating individual progress as well as overall program effectiveness. It provides a maximum amount of information through a minimum amount of testing.

HOW DO I PREPARE FOR PARENT CONFERENCES REGARDING INTERPRETATION OF STUDENT PROFILE?

Pre-Conference Teacher Preparation

1. Gather Materials and Resources

   - individual reports
   - continuums
   - DoDDS Scope and Sequence guides
   - test objectives list for grade level
   - overall DoDDS means for appropriate grade level

2. Analyze Individual Reports

- check the Measurement Quality index on each student report and separate out student reports showing a Measurement Quality below 95
- examine each individual report to identify possible causes of low Measurement Quality, such as guessing, developmental gaps, cheating, erratic performance, etc.
- identify strengths, weaknesses, and unexpected responses for each student
- compare individual performance to class report form
- relate findings relative to instructional objectives for your grade level for each content area

HOW DO I CONDUCT THE PARENT CONFERENCE?

1. Set the purpose of the conference
   - to report your child's progress in the basic skills
   - to discuss instructional strategies based on test results
   - to provide an opportunity to exchange information mutually beneficial to the development and well-being of the student

2. Describe the basic framework for why we test
   - to measure a child's progress within an instructional program
   - to compare how DoDDS students perform relative to stateside students of similar age
   - to see if program objectives are being met
   - to make decisions about program development or change in relation to learning outcomes

3. Briefly explain the methodology of the Basic Skills Assessment Program as described in the filmstrip
   - objective measure of performance
   - scaling of items
   - diagnostic potential
4. Identify grade level expectations
   - present an overview of program goals as defined by DoDDS Scope and Sequence guides
   - review the Basic Skills grade level objectives drawn from the Scope and Sequence guides
5. Report performance in each content area
   - relate performance to overall instructional objectives
   - use continuums to locate performance relative to total curricular sequence
   - discuss Measure on Scale in relation to grade level expectations as defined by DoDDS Scope and Sequence

WHAT QUESTIONS WILL I BE ASKED ABOUT THE CURRENT TESTING PROGRAM?

What makes the Basic Skills Assessment Program a "new" approach to testing?

The Basic Skills Assessment Program approach to proficiency testing is concerned with the relationship between a student's ability and an item's difficulty. This relationship forms the basis for providing a measure of achievement on a developmental continuum similar to the measurement of height or weight. Because individual scores are not based upon group comparisons or between a student and a norming group, this approach solves many measurement problems that did not permit objective assessment relative to a standard. With this new approach items are scaled according to difficulty forming a "curricular yardstick" designed to measure an individual's achievement against a set of defined skills or instructional objectives.

HOW IS THIS DIFFERENT FROM OTHER TESTING PROGRAMS?

The Basic Skills Assessment Program differs from a conventional testing program in the following ways:

- scores are not dependent upon a unique set of items and the system allows for items to be drawn from an item bank so tests are more representative of the instructional program
- score interpretation is not dependent upon the performance of an external group of students so scores represent learning outcomes resulting from a defined set of instructional objectives
- a score is dependent only upon an individual's ability in relation to the difficulty of the items
- this approach provides for score interpretation in relation to a total curricular sequence and in effect defines how a student "measures up" relative to grade level objectives
- this system provides a means of assessment that is fair to all students

HOW DO I KNOW IF MY CHILD IS ON GRADE LEVEL?

Under traditional testing programs, grade level has been defined by the average performance of a representative sample of children of similar age. The Basic Skills Assessment Program, by contrast, defines grade level in terms of performance on an agreed upon set of instructional objectives. These objectives were drawn from an overall educational plan as represented by DoDDS scope and sequence guides.

IS THE MEASURE ON SCALE THE STUDENT'S SCORE?

The student's Measure on Scale is more than simply a score. Technically, a score represents the number of items a student got right on the test. A student's Measure on Scale, although derived from the number of items answered correctly, represents a position on an equal interval scale which can be used to identify a set of acquired skills. In effect, a Measure on Scale represents not only the student's score but his position relative to a larger set of objectives.

WHAT DOES THE TERM "MASTERY LEVEL" MEAN IN RELATION TO MY CHILD'S PERFORMANCE?

Under the Basic Skills Assessment Program, mastery is synonymous with the probability of answering an item correctly at a specified difficulty. The Measure on Scale represents a 50 percent probability that the child can answer items of that difficulty. Items with a lower difficulty have a higher probability of being answered correctly. Conversely, more difficult items have a lower probability of being answered correctly. For example, a child with a Measure on Scale of 550 would be expected to answer items of that difficulty with 50 percent accuracy.

WHAT DOES THE TERM "EXPECTED" MEAN?

The term "expected" is related to the concept of mastery and is used to describe how well the student's response pattern fits the model. This implies that a student would have a higher probability or would be "expected" to answer items below his Measure on Scale. Conversely, the student is "expected" to miss those items which are above his Measure on Scale.

WHAT IS MEANT BY MEASUREMENT QUALITY?

Measurement Quality is a number that represents the extent to which the student responds in an expected pattern of getting easy items correct and more difficult items wrong. The degree of departure from 100 represents increased possibility of an invalid measure of performance. A low Measurement Quality (95 or below) may be attributed to:

- gaps in instructional experiences due to excessive mobility or repeated absence
- copying/cheating or guessing during the exam
- developmental or learning deficiencies such as inability to deal with abstract concepts, part-to-whole relationships or interpretation of visual information
- erratic performance due to emotional factors related or unrelated to the test situation

WHAT IS MEANT BY PROBABLE RANGE?

Due to the imperfect nature of all types of measurement, no score should be viewed as an absolute. The probable range represents the score areas where we would expect a student's score to fall given repeated testing within the same instructional context.

HOW WILL USE OF THE TEST RESULTS BENEFIT MY CHILD?

The Basic Skills Assessment Program provides the following benefits:

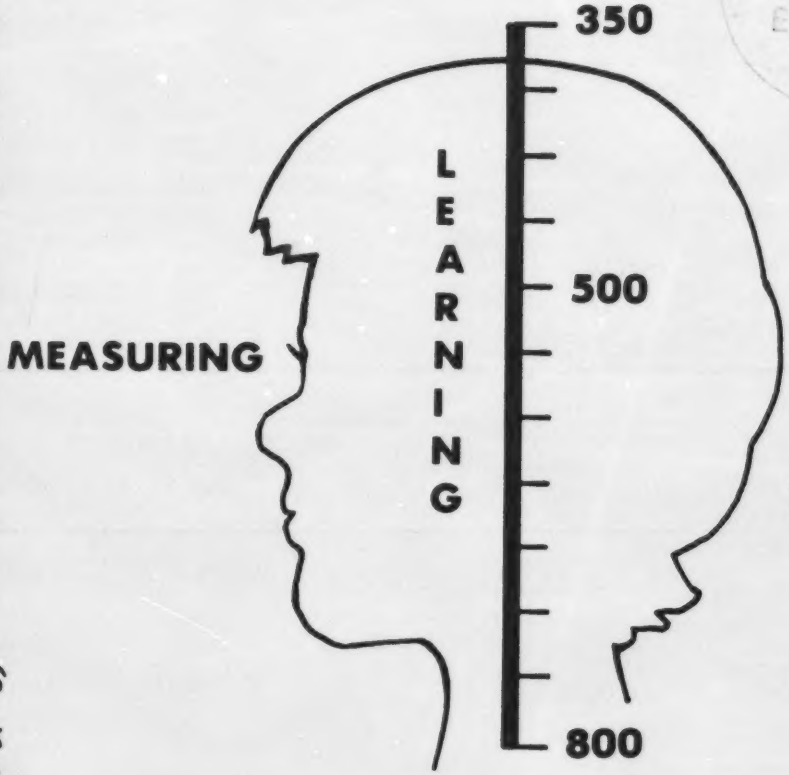
- a fair means of assessment because it is an individual measure rather than a group comparison
- a more complete profile of overall student performance by listing expected as well as unexpected response
- a test with diagnostic properties that identify specific strengths and weakness to guide appropriate instructional follow-up

- a score expressed as a Measure on Scale that carries meaning relative to the instructional program it measures
- a Measurement Quality index that provides a means for determining the degree of confidence one can place in the score (Measure on Scale)
- a definition of individual performance in terms of degree or probable percent of mastery for each skill area
- test results that allow for measuring longitudinal growth patterns of individuals as well as group trends
- a system for detecton of specific response patterns among groups of students with similar learning disabilities
- a system that provides feedback on program effectiveness relative to learning outcomes

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS
BASIC SKILLS ASSESSMENT PROGRAM

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY



"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Thomas D.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ADMINISTRATOR PAMPHLET

Foreword

In the spring of 1980, the Department of Defense Dependents Schools completed its second year of basic skills testing. During the first year, the Basic Skills Assessment Program tested students' math skills in grades 7 and 11, and reading and language skills in grades 9 and 11.

Last year, the testing program was expanded to include the elementary grades. Basic skills performance in reading, math, and language was assessed in grades 3 and 11, math skills in grades 5 and 7, and reading and language skills in grades 4, 6, and 9.

One of the major goals of the Basic Skills Assessment Program is to provide useful test data for program evaluation as well as individual diagnosis. This pamphlet is designed to help you, as a DoDDS administrator, integrate the results of the Basic Skills Assessment Program with other input on student performance and program effectiveness, and to show you how to use these results to make instructional and curricular decisions.

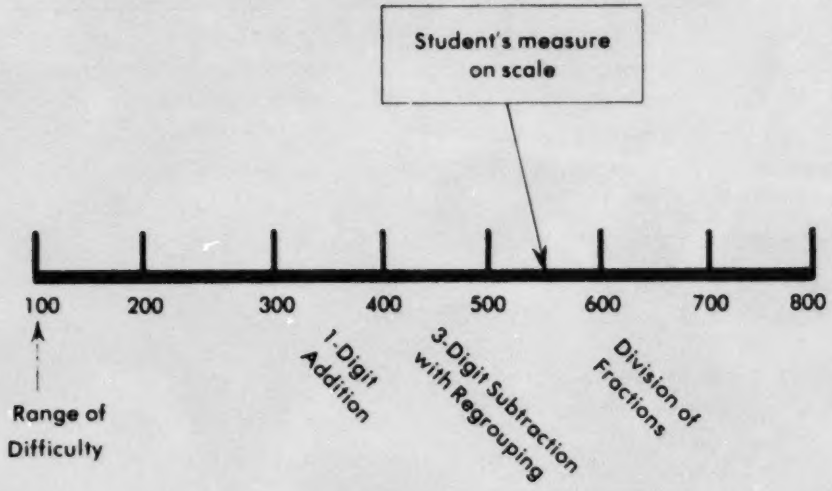
BASIC SKILLS ASSESSMENT PROGRAM

Introduction

Measurement, when applied to proficiency testing, is a way to connect learning experiences and observed outcomes through a score or numerical value. In the past, the meaning of a standardized test score was dependent upon a particular group of students who took a particular set of items. Change the items or the norm-reference group and the meaning of the score changes.

The Rasch Model, a recent technological advance within the field of measurement, has permitted us to overcome the difficulties associated with score interpretation under traditional measurement methods.

The DoDDS Basic Skills Assessment Program, based on the Rasch Model is about measuring persons, not sampling populations, and in effect describes what happens when a student takes a test item. The model allows us to determine the odds for success, and reports scores in terms of probable mastery levels. The two main ingredients of the model are item difficulty and student ability. By combining these two variables through their difference we are able to assign each item a difficulty value (calibration value). When the items are placed in ascending order of difficulty, an equal interval scale is formed. By placing a student's score or measure on scale on the same scale with the items we are able to describe student performance in relation to the total range of difficulty.



Development of the Basic Skills Tests

In order to provide useful information on a child's educational progress, a test must be designed to match classroom learning experiences. The DoDDS scope and sequence guides provide the framework for those experiences by identifying specific goals and objectives for each grade level. The objectives represent basic skills considered essential to successful performance in mathematics, reading, and language.

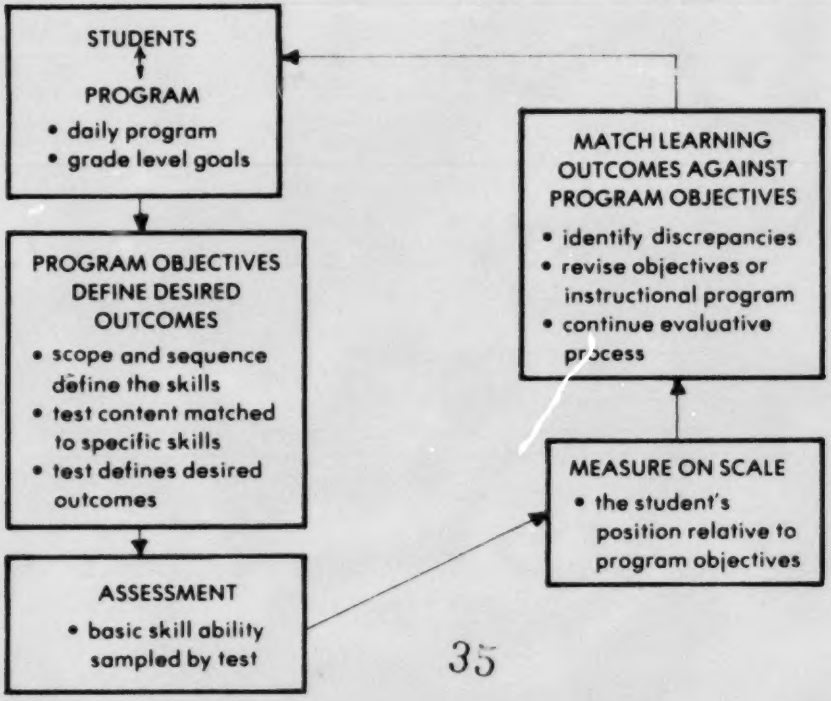
In developing tests, items designed to measure the basic skills were drawn from the Los Angeles County Test Development Center item banks. DoDDS personnel selected and reviewed all items for appropriateness to measure progress in existing programs. Each test is designed to measure basic skill development.

The Basic Skills Assessment Program in Perspective

In any educational setting, evaluation plays an important role in determining progress. The flow chart on the following page illustrates how the DoDDS Basic Skills Testing Program enables the school personnel to determine the effectiveness of the instructional program. At the school site level, an instructional program is defined by specific goals and objectives.

A child's performance on a test designed to measure progress toward these objectives results in a Measure on Scale. By matching a Measure on Scale to program objectives, learning outcomes can be evaluated. Results can also be used to make decisions regarding overall program effectiveness. To have a vital instructional program d iscrepancies should be identified and appropriate revisions made. This cyclic process facilitates attainment of program goals and enhances the likelihood for student success.

FLOWCHART OF EDUCATIONAL EVALUATION DESIGN


STUDENTS
PROGRAM
• daily program
• grade level goals
PROGRAM OBJECTIVES DEFINE DESIRED OUTCOMES
• scope and sequence define the skills
• test content matched to specific skills
• test defines desired outcomes
ASSESSMENT
• basic skill ability sampled by test
MEASURE ON SCALE
• the student's position relative to program objectives
MATCH LEARNING OUTCOMES AGAINST PROGRAM OBJECTIVES
• identify discrepancies
• revise objectives or instructional program
• continue evaluative process

How to Use Basic Skills Assessment Results for Curricular and Instructional Decision Making

PHASE 1: SCHOOL SITE LEVEL

Curriculum Support Staff

Process:

- VIEW filmstrips Nos. 1, 2, 3, 4
- SEPARATE individual Student Reports by classroom
- IDENTIFY percentage of discrepancy between observed and expected (see Performance/Curriculum Match Form)
- LIST curriculum strengths and weaknesses by content area
- LIST possible causal relationships between program and learning outcomes. Examples might include: inappropriate instructional materials, grouping, emphasis or teaching stratigies.
- EXAMINE relationship between identified strengths and weaknesses and components of existing educational program.
- DETERMINE acceptable range of performance for each grade level.

Administrator

Process:

- DISCUSS program strengths and weaknesses based on overall test results
- DISCUSS skill areas that need special attention based on overall assessment results
- GROUP faculty by grade level to facilitate further analysis of specific skill performance within a grade level
- FORMULATE a plan of action to address discrepancies or instructional needs by:
  (1) using Class Reports to identify specific needs
  (2) listing possible activities to overcome problem areas.

- SUMMARIZE results of this meeting
- REQUEST faculty to prioritize suggested strategies for change
- FORMULATE a plan for implementation of change
- DEVISE a way to monitor if changes are occurring
- DETERMINE success of change based on learning outcomes

PHASE 2: CLASSROOM LEVEL

Classroom Teachers

Process:

- DISTRIBUTE individual student reports to teachers
- DISCUSS The Basic Skills Assessment Program as part of an educational evaluation plan (see flowchart on page 4 of this pamphlet).
- REVIEW the Student Report form and explain process for analyzing individual Report forms (refer to flow chart on page 4 of this pamphlet).

Process for Analyzing the Student Reports

Step 1 Analyze individual Student Reports for instructional grouping by sorting Reports into 2 groups:

Group (1) those students with a Measurement Quality index below 95 (see box at top of Report)

Group (2) those students with a Measurement Quality index at or above 95

Step 2 Sort Group (2) Student Reports into two subgroups:

Subgroup (1) those students who are meeting grade level expectations

Subgroup (2) those students whose performance levels fall below acceptable minimal standards for the grade level

Step 3 Arrange students having acceptable performance levels into groups of similar Measures on Scale.

Step 4 Arrange students having unacceptable or below grade level performance as to Measure on Scale.

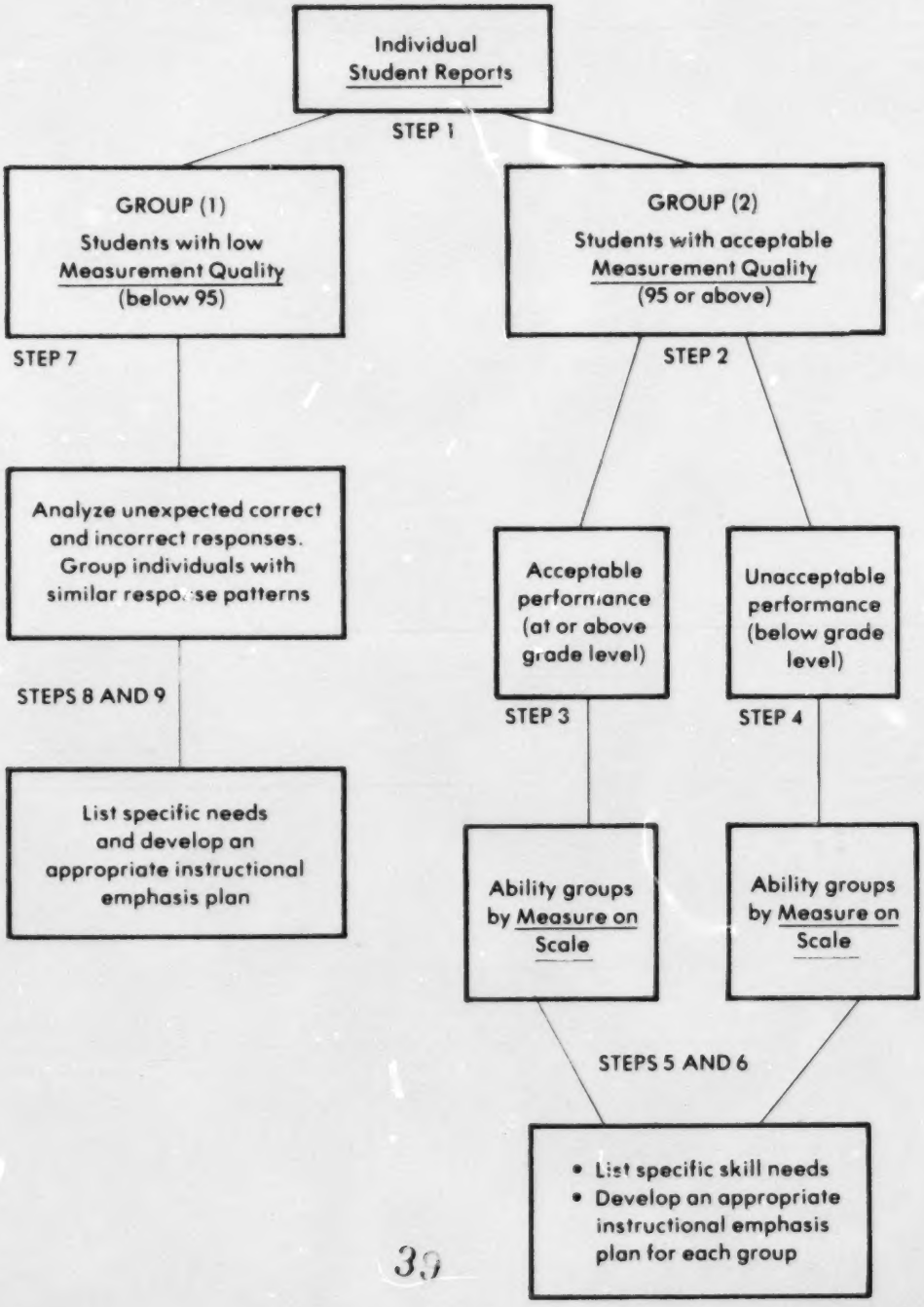
Step 5 List specific skill needs for both groups of students.

Step 6 Develop an appropriate instructional emphasis plan of action for each group or on an individual basis.

Step 7 Analyze Group (1), those students with a low Measurement Quality index. Group individuals with similar response patterns of unexpected rights and wrongs.

Step 8 List specific skill needs based on analysis of each group or for individuals.

Step 9 Develop a plan for appropriate instructional follow-up.


Individual Student Reports
STEP 1
GROUP (1)
Students with low Measurement Quality (below 95)
GROUP (2)
Students with acceptable Measurement Quality (95 or above)
STEP 7
STEP 2
Analyze unexpected correct and incorrect responses. Group individuals with similar response patterns
Acceptable performance (at or above grade level)
Unacceptable performance (below grade level)
STEPS 8 AND 9
STEP 3
STEP 4
List specific needs and develop an appropriate instructional emphasis plan
Ability groups by Measure on Scale
Ability groups by Measure on Scale
STEPS 5 AND 6
• List specific skill needs
• Develop an appropriate instructional emphasis plan for each group